**Programming in C**

**Quiz 1**

February 16, 2015

Instructions: Write briefly and clearly. If I can’t read it, I can’t grade it. Write only one answer.

1. Multiple choice questions: circle ONLY ONE ANSWER (5 points):

MCQ 1: Which of the following is the correct order of the use of various application software for entering, translating and running a complete ‘C’ program?

A. word processor (editor), loader, compiler, linker

B. word processor (editor), compiler, linker, loader

C. loader, linker, compiler, word processor (editor)

D. word processor (editor), compiler, loader, linker

MCQ 2: Which of the following tasks is typically not done by an operating system

A. Communicate with computer user,

B. Manage memory,

C. Collect input/Display output,

D. Do simple word-processing.

MCQ 3: The algorithm step that determines (gives the names of) program inputs and outputs is:

1. The problem step
2. The analysis step
3. The design step
4. The implementation step

MCQ 4: Which of the following is not a ‘C’ reserved word?

A. double

B. return

C. printf

D. if

MCQ 5: Which of the following can be a valid C identifier?

A. three\_stars

B. 7up

C. myname@apple

D. miles per kilometre

1. (1 point) Evaluate and then write the **numeric value** of the expressions shown below:

|  |  |
| --- | --- |
| Expression | Value |
| (1+7/4)+3%5 | 5 |

1. (2 points) Write the C Language instruction that corresponds to the following mathematical expression. Assume that all of the variables were declared of type double.

|  |  |
| --- | --- |
| **C Language Instruction** | **Mathematical Expression** |
| root1 = (-b + sqrt(b\*b - 4\*a\*c)) / (2\*a) | *root1* = |

1. (2 points) Show the output of the following program in the table provided below it. Each row in the table, below, corresponds to one display row that is displayed on your computer display screen. **Each square in the table, below, corresponds to one digit:**

**#include <stdio.h>**

**int main(void)**

**{**

**int i = 900;**

**char ch = ‘W’;**

**double x = 12.345;**

**printf("%2d%c%5d\n", i, ch, i);**

**printf("%3.2f%0.4f%3.0f\n", x, x, x);**

**return (0);**

**}**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | 0 | 0 | W |  |  | 9 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 2 | . | 3 | 5 | 1 | 2 | . | 3 | 4 | 5 | 0 |  | 1 | 2 |  |  |  |  |  |  |  |  |